

PRESENTED

7 MAY 1946

SESSION



1939-1940.



PROCEEDINGS and REPORTS

of the . . .

**Belfast Natural History
and Philosophical Society**

SECOND SERIES :
Vol. I, Part V.

PRICE - - TWO SHILLINGS.

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of the

Belfast Natural History and Philosophical Society



Second Series : Volume I, part V.

SESSION - 1939-1940

EDITED BY ARTHUR DEANE,
HON. SECRETARY.

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BELFAST NATURAL HISTORY AND PHILOSOPHICAL SOCIETY.

[ESTABLISHED 1821.]

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The membership of the Society consists of Shareholders, Annual Subscribers and Honorary Members.

Shareholders holding more than two shares are not liable for an annual subscription, but shareholders of two shares pay an annual subscription of five shillings, and holders of one pay ten shillings.

In 1914 a new class of membership was created including persons of either sex, to be elected under the bye-laws of the Society, and admitted by the Council on payment of ten shillings per annum. Such members have all the privileges of the Society, and take part in any business of the Society not affecting the ownership of the property. In 1917 an Archaeological Section was founded. Persons wishing to join the Section must be members of the Society and pay an additional minimum subscription of five shillings per annum.

A general meeting of Shareholders and Members is held annually to receive the Report of the Council and the Statement of Accounts for the preceding year ending 31st October, to elect members of Council, to replace those retiring by rotation or for other reasons and to transact any other business incidental to an Annual Meeting.

The Council elect from among their own number the President and other officers of the Society.

Each member has the right of personal attendance at the ordinary lectures of the Society, and the privilege of introducing two friends for admission to such.

Any further information required may be obtained from the Hon. Secretary, at 7 College Square North, Belfast.

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BELFAST NATURAL HISTORY AND PHILOSOPHICAL SOCIETY.

Founded 5th June, 1821.

Application Form for Membership.

To be filled
up by the
Candidate

Name, etc.

[Please write name in full.]

Description

Residence

....., being desirous of becoming a Member
of the Society, I, the undersigned Member, recommend.....as a suitable
candidate for election.

Dated this.....day of..... 19.....

Signature of }
Member }

[Candidates must be known to the Member signing this form.]

[All applications are subject to the approval of the Council.]

Received.....

Elected by }
Council }

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Persons wishing to join the Archaeological Section must be Members of the Society, and pay an additional minimum subscription of five shillings per annum. State below if you wish to join this section.

I desire to join the Archaeological Section.

Signature }
 of
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29th January, 1940.

PROFESSOR T. THOMSON FLYNN, President, in the Chair.

CAN HISTORY BE TRUE?

By D. LINDSAY KEIR, M.A.

The diffidence with which a newly-elected member of this Society naturally responds to a first invitation to lecture before it is to some extent relieved by the reflection that the occasion will anyhow afford him an early opportunity of expressing his pleasure at entering so distinguished and so congenial a company. Of that opportunity I gratefully avail myself. The record of this Society during the 119 years of its history is indeed a proud one. Every branch of learning in this country, and particularly in this city, has found in the Society an enlightened and generous patron. Its collections have enriched the city with valuable material illustrative of many aspects of human culture and its physical environment. Its home in these buildings has been a centre of science, art and literature. Its hospitality has been extended to many kindred societies from other lands, and its honours have been bestowed on many great scholars. It is indeed a privilege to be welcomed into a Society which has for so long a time contributed to the advancement of learning, and whose roll of membership is adorned by so many famous names. I find special pleasure in being welcomed as a member by a President who is also a professor of the Queen's University, with which the Society has been intimately linked throughout most of its life. I should like to compliment the Society, if I may, on having at its head a scientist whose work lends distinction to the University as well as to itself, and to say how greatly I appreciate the kindness with which he has received me here.

I am not at all sure, however, whether I would have received so hearty a welcome from his predecessors of a century ago. I observe* that at that time the Society was still governed by a resolution "that in future it be requested that all members will confine the subjects of their paper within the limits of the Society's original objects, namely, natural history, so called, and the topography of Ireland," somewhat modified by a later resolution admitting natural philosophy and statistics "on certain nights set apart for the purpose." Neither as a natural historian, "so called," nor yet, I fear, as an Irish topographer, could I have put forward any claim to its attention. Nor could I have expected a hearing even on those evenings when the Society, throwing dignity to the winds, descended to natural philosophy or statistics. Moreover, I should have incurred the President's displeasure in yet another way even had I been admitted to address the Society—I should under the old rules have incurred a fine of 1/3 for not declaring my subject in time, and 10d. more for not delivering to him an analysis of the paper. However, we live in laxer days. The Society's centenary volume contains on page 13 the encouraging remark that "much more liberty was given to the authors of papers, and the diversified character of the subjects brought forward from time to time will be seen in Appendix I, p. 118." I turned to the Appendix as directed, and found comfort. The list of subjects is varied as well as interesting, and I find that my own subject of history has sometimes been adjudged

*Society's Centenary Volume, 1821-1921.

worthy of the Society's consideration. The historical subjects brought forward in this way are certainly not recognisably philosophical or statistical. Neither do they conform to my own definition of "natural history, so called." I suppose they can only have gained admission as "unnatural" history—an artificial creation, devoid of the solid and objective content with which the natural and experimental sciences, and perhaps even statistics also, are replete.

This question whether history is artificial presents itself, I assure you, with uncomfortable sharpness and emphasis to the minds of those whose craft, it is to write or teach it. What intrinsic value can be attributed to all that laborious, sometimes irksome, often unsatisfying, though perennially fascinating attempt to reconstitute the human past, on which one is engaged? We historians derive cold comfort from Oscar Wilde's delusively flattering remark that "anybody can make history—it takes a great man to write it." Critically weighed, indeed, this remark only deepens one's doubts. Of course irresponsibility can easily find a way of escape by granting that history is all just a tale. In a recent book—I may as well tell you it is an Irish book—I read how the authoress, having contributed an article on Irish events to an English newspaper, was asked by an unromantic Saxon editor: "Would you give me the date when these things happened?" This question, she observes plaintively, came as a shock. It almost destroyed her faith that her story could be true. Then she solaced herself by the reflection that "we in Ireland have always lived by faith, because we have had nothing else to live by." Thus fortified, she supported her assertions, to her private satisfaction at least, by the conclusive arguments, first, "it could be happening," and thereafter, "it did be happening, then." I have described this as an irresponsible escape. And yet the serious historian must often ask himself whether he ought not, in candour, to make the same admission about his own work. Can he ever, with all his pains, achieve such a degree of accuracy in his reconstruction of the past as to say with conviction "my history of this is true."

Most of you, I am sure, will recall the remark that "all history is contemporary history." It is, in one sense, an admission that there is an unbridgeable gulf between the precise, verifiable knowledge of the natural philosopher or natural historian, and the unsubstantial and unverifiable imaginings of the "unnatural" historian whose version of the past is nothing more than the figment of his own mind. What has happened in the past; it is argued, is irrecoverably gone. It can neither be experimentally repeated nor accurately observed. You cannot recreate the conditions which you wish to describe. You cannot, in any final sense, test your evidence. All you can do is to induce a particular act or process in your own mind. That, it is held, is what the historian does, and all he can do. And what he does is only an act performed in the time in which he lives, and belongs to that time and that time alone. If I write, for example, a history of King William III, that which I do is to record not what that eminent man did two and a half centuries ago, but what is going on in my own mind about him in the year 1940. On this view, there can be no "history" at all, but only a series of individual mental acts, each related to its own time, and to no other. There can never be any objective reality about them—they are merely a number of subjective states.

If we historians really believed this, we should of course all lay down our tools. We should regard ourselves as no different from historical novelists. Our work would seem, in our eyes, no true version of the past at all, but only our imaginative efforts to grasp what we are incapable of recapturing. Yet we do not make any such surrender. We assert that we can record the past with fidelity for the information and the guidance of the world we live in, and, more

boldly, for the illumination of the hidden future. These all, and especially the last, are high claims. But we have put them forward, and induced other people to believe them. We have been acclaimed as counsellors and even prophets. To our record of the past men have looked for practical help. It is true that our claims have often been looked on askance. So eminent a mind as that of Mr. Henry Ford has pronounced the emphatic judgment that "history is bunk." But others with at least as serious a claim on our attention have said that "history is philosophy teaching by examples"—that it is "the unrolled scroll of prophecy"—that it "teaches everything, even the future"—that it is "the chart and compass of national endeavour." This last remark is peculiarly significant. It underlies much that men have earnestly believed—for example that nations have "manifest destinies," that they have traditional interests and policies, and inherit necessary and unalterable friendships and antagonisms, that the processes of their development are inevitable, and therefore predictable. A grave responsibility rests on historians if these claims are to be made for history. Suppose that, after all, what they have so confidently laid down, and what their fellow-men have so tenaciously believed, is nothing more than the record of their own vain imaginings.

I cannot pretend that what I shall say will supply an answer to all these great and anxious questions. But I shall at least try to say how far I believe historical truth to be attainable by the means which we historians use. You will forgive me if my conclusions are no more than tentative. I shall state the most important of them at once—my belief that it is possible for the historian to state with precision and truth his knowledge that certain events have taken place in the past, that they have taken place for ascertainable reasons, and that their occurrence has produced ascertainable results—in principle, that is to say, it can be maintained that truth in history is possible, and that the historian stands nearer to the natural historian than to the novelist or the playwright or the poet.

I shall ask you to concede one preliminary point—that the historian's enquiry into the past is dominated by the desire to discover truth if it can be found. I am sure you will agree that *prima facie* it is unlikely that men of ordinary intelligence, integrity and self-respect would engage in the laborious tasks which occupy the historian unless they were fortified by this thought—"the truth is there, and I shall endeavour to find it." I am not for a moment forgetting how fascinating the task is of seeking to recreate the scenes and sounds of a vanished world, to people it with the men and women who lived their days in it, to listen to and try to understand their voices, to enter into their hopes and fears and ambitions and disappointments, to follow their actions and try to penetrate to the secret springs of motive or impulse which prompted them, and then to seek for words in which to convey what one believes one has seen and learned so that one's printed page glows and vibrates with life. But the fascination would vanish if one felt one was only pursuing a dream. In the eloquent words of Professor G. M. Trevelyan: "That which compels the historian to scorn delights and live laborious days is the ardour of his own curiosity to know what really happened in that land of mystery which we call the past. To peer into that magic mirror and see fresh figures there every day is a burning and inspiring desire that consumes and satisfies him all his life. . . . It haunts him like a passion of almost terrible potency, because it is poetic. The dead were, and are not. Their place knows them no more, and is ours to-day. Yet they were once as real as we, and we shall to-morrow be shadows like them. . . . In the realm of History the moment we have reason to think that we are being given fiction instead of fact, be the fiction ever so brilliant, our interest collapses like a pricked balloon. To hold our interest

you must tell us something that we believe to be true about the men who walked this earth. It is the fact about the past that is poetic: just because it really happened, it gathers about it all the inscrutable mystery of life, and death, and time. Let the science and research of the historian find the fact, and let his imagination and art make clear its significance."

All this is true, and it is well that it is true, for it is this belief that one can *know* and *utter* the *truth* that carries the historian through weary hours of drudgery and disappointment.

Consider, if you will, the immense difficulties under which he does his work. Firstly, except when he is writing autobiographically, he is never his own eye-witness. Here he is of course in a wholly different position from that of a scientist, who generally observes for himself, or could if necessary observe for himself. The historian's task is primarily to make correct statements in relation to the evidence of other people. A scientist may, and often does, rely on the findings of other scientists: but if he chooses, he can submit their results to his own verification. If he accepts these results without independent verification it is because he can feel confident that they are the work of men with a training, equipment, and outlook similar to his own. Not so the historian. It is as though the scientist were compelled to rely, without the possibility of checking them, on the statements, at best of his laboratory attendant, at the worst of a deaf parson of strongly fundamentalist convictions, or of an unknown chance acquaintance he meets on the tramcar during his morning journey to Queen's. The evidence he deals with is always second-hand, and may be bad second-hand—confused, inaccurate, prejudiced. His only means of testing it is to check separate statements against each other, if separate statements exist. The more remote the period he is concerned with, the less likely, on the whole, is it that he will find several different statements to compare. And where they do exist, it may be that their relative credibility cannot be objectively measured, and that he must rely on his own sense of probability—itself the product of his own experience—in choosing which he is going to prefer, assuming that some one of them must be correct—and there is always the risk that none of them is correct.

An acute sense of the risks that are incurred when, besides allowing for one's own personal fallibility one has to allow for the fallibility of others, has induced historians during the last generation or so to look with increasing distrust on the narrative sources of history—chronicles, memoirs, speeches, letters, diaries, autobiographies, and the like. All of these may be similarly tainted. They may be grossly inaccurate, or seriously misinformed, or incomplete. They may be deliberately mendacious. They may be deeply, even venomously, prejudiced. They may be essays in self-justification or self-glorification, or intended to cast obloquy on others. The writer may not have known the truth, or if he did may have deliberately or accidentally concealed it. Distrust of such material has led historians to rely increasingly on archival sources, in dealing with which the element of personal fallibility—other than their own—is comparatively slight. To give a few examples, I could refer you to the drastic revision which modern research has made in the history of the Roman period in Britain by abandoning narrative sources—which anyhow were few and slender—and enlisting the help of archaeology. Again, I could point out that the struggle between that notorious tyrant King John and the high-souled patriots who won the Great Charter from him looks rather differently if it is studied in the official documents enrolled in Chancery as compared with the version given by the partisan monk Matthew Paris. To take a third example, the work of the Star Chamber looks very different indeed if one studies the record of its poor-law administration instead of reading the speeches made against it in Parliament.

This new tendency to exclude so far as possible the dangers of relying solely on personal evidence and substitute for it documentary or other purely material evidence has been immensely important in modern historical scholarship. Drastic revisions have been made of the accepted body of historical fact. Large quantities of new facts have been ascertained. If I may refer particularly to Irish historical scholarship, where the need for a scientific re-investigation of what has passed for the truth, and an opening-up of new fields of investigation, were both required with greater urgency than in most other countries, remarkable work is being done by the combined efforts of the newly-founded Irish Historical Society and Ulster Society for Irish Historical Studies, and is being published in their joint enterprise, the *Journal of Irish Historical Studies*. In every period of Irish history, particular, precise and definite information is now being amassed more quickly and more certainly than ever before, and with a more objective and dispassionate temper than any earlier historians of this country have managed to command. Every professional historian is of course well aware of the necessary limitations connected with the most scientific method he possesses for discovering, testing, and assessing the facts of history. He must admit to receiving as evidence much which would not be accepted either by a lawyer or by a natural or experimental scientist, and many historians would be none the worse of a training in the more rigorous intellectual disciplines of these other studies. When all is said and done, however, the historian may justly point out that he can only do his best with the available material, that the fact that he cannot employ the same potent tests as the scientist or the lawyer is no doubt inconvenient, but does not prevent him from applying, in principle, the same criteria of probability as they do, and that like them he emphasises properly the provisional nature of his results.

I would, therefore, assert that it is possible for the historian to arrive at *facts*—cutting his way through masses of previous mis-statements, forgeries, evasions and other obstacles. He can, I think, properly maintain that these facts are demonstrable by processes akin to those employed by other scholars. We must of course distinguish between different degrees of ascertainability—for instance between the precision with which the Siege of Derry can be narrated, and the precision with which William III's mental attitude towards the Treaty of Limerick can be established. But, taking all in all, the historian can place before his readers a picture of the past which corresponds fairly closely to the world in which men once lived.

Is this as far as we may go in asserting that history can be true?—that it means an accurate presentation of events as they happened, an attempt at accurate understanding of motive? Many historians have thought so, and the more rigorously scientific their outlook has been, the less have they been inclined to venture further. Their ideal has been precise and objective description, and no more. They have not felt justified in further interposing their own fallible personality between their facts and their readers. I have one immediate complaint against this very common attitude. It has tended to divorce history from literature, so that there may be little essential difference between a historical monograph and one on the quantum theory or the theory of continental drift. The general reader of past generations expected to include historical reading as part of his cultural experience, and in the age of great "literary" historians such as Macaulay or Froude, he was not disappointed. Now, I fear, it is doubtful whether the great mass of modern historical writing commands much of a public apart from professional students of history—and these are not an enormously large number. Many people responded to the infectious charm and frivolity of "1066 and All That" because it just about summed up in parody the extent

of their own historical knowledge—and, we may add, interest too. I should point out, however, that as Nature abhors a vacuum, the empty place in their minds is in practice filled by the many trivial and unworthy compositions which are paraded by literary hacks as genuine historical works. But this criticism that history has been deposed from its place among the Muses, however genuine the feeling which prompts it, may be ill-founded. It may be correct to regard history as only a branch of Science, intended for the edification of scientists. So if I claim for history a right to attempt something more than description, some element of truth beyond mere accuracy in matters of fact, I shall have to find stronger ground.

Historians have it is plain, done more than collect facts. They have undertaken to relate them, explain them, connect them in processes, and even pass judgment on these processes—for example: on the decline of the Roman Empire, the rupture of Christendom in the 16th century, the overthrow of the Stuart monarchy, the destruction of British rule in eighteenth century America. And the world has attached immense importance to their judgments. With what right have they done these things? What claim have their words on men's minds? Are their conclusions to be regarded as truth? Or is all this "unnatural" history, an arbitrary arrangement and interpretation of events imposed by one man's mind, which he would have done more wisely, and more honestly, to keep to himself?

I do not think so. I think the historian *must* advance beyond collecting facts. Nothing is less true than to say that "facts speak for themselves." They seldom do. They have to be selected, arranged, brought into significant relation, and given values. You may conceive of the historian's task as being done in three successive stages—the collection of facts by due weighing of evidence; the selection of those facts which are to be utilised; their arrangement in an ordered composition. Is there, one may ask, any real difference between the first of these stages—the collection of facts—and the other two? I believe not. The element of selection, arrangement, composition, is present throughout. Even to choose a subject involves choosing what is to be regarded as evidence about it. Here the historian is not really different from the scientist, who in practice cannot experiment without some pre-conceived idea, some assumption to be tested by appropriate means. The historian too is an experimenter, if in a different medium. He raises questions for experiment, and finds new questions raising themselves as the experiment proceeds. He finds himself, I think, obliged to frame hypotheses to cover the facts he finds by experiment. They have to be brought into mutual relationships as parts of a connected whole. He must ask himself, for example, what effect depopulation had on the decline of the Roman Empire—once he has established both things as facts—he must ask whether the emergence of the nation-state had anything to do with the disruption of Christendom in the 16th century—he must ask whether religious or political causes had more to do with the fall of James II—whether the cessation of the menace from Turkey explains the collapse of the Austro-Hungarian monarchy.

Moreover, once we have got so far, we find we have committed ourselves to going further—we must ascribe *relative* significance to this event and that. We must ask, for example, was the Reformation due rather to secular motives of self-interest or to a genuine quickening of spiritual life? Did the Stuarts fall because they affronted the religious convictions of their subjects, or because they attempted to break the dominance of the wealthier classes in the State? Was the defeat of Germany in the Great War due to military or to economic collapse? Are the Allies responsible for the overthrow of the Weimar Republic, or was it,

as has been suggested, so deficient in internal coherence and vitality that it must have gone down anyhow? On all these problems historians have not only pronounced, but felt compelled to pronounce. But with what truth?

Some of them have gone further still. They have imposed the pattern of their own thought on the events of history not merely as a working hypothesis, to be held until it is supplanted by another, found to be more satisfactory, but as a changeless theme. Their concepts have been various. Some, like the Catholic Bossuet, or the Lutheran Ranke, have discerned in history the fulfilment of a Divine purpose, manifesting itself differently to the mind of each, it is true, but in essence and principle the same. At the opposite pole, Karl Marx, by singling out the relations involved in the process of production as the key to history, arrives at a dialectic of history no less challenging than theirs, profound though the differences are—though it may be added that his messianic summons to a world-revolution which will be the culmination and end of human history, however long the human race may last—does not permit his dialectical materialism to work entirely unassisted. Spengler, to take a less interesting example, imposes on history a recurrent cyclic process of rise and fall. Descending lower still, at least from this point of view, one finds Macaulay writing the history of the seventeenth century as a kind of prelude to the majestic symphony of Victorian England in which all the themes announced in all earlier ages were to receive their ample and final development.

Does the truth reside in any of these theories of history? Those who have propounded them have undoubtedly thought that it did. I cannot see that there is any answer to the question. We shall reply to it differently according to the different attitude of our minds. Some of us—perhaps any one of us at particular moments—will trace in the events of History the accomplishment of a great design which inspires us with veneration and awe, with despair or with hope, with repugnance or with thanksgiving. The historian may find, as other men do, that the world he lives in makes nonsense unless he can regard it with either the Christian or the Marxist eye of faith and see amid its flux and reflux the evidence of one increasing purpose.

Most historians, however, find such spiritual altitudes uncomfortable and their atmosphere too rarified to sustain the vitality they need for their work. They respond with alacrity to the warning against a mere subjective reconstitution of the past evolved out of their own inner consciousness. They strive to attain objective reality in matters of fact, and may fairly claim to succeed. They can sincerely undertake to say *what has happened*. They will also undertake to suggest *why* it has happened—to set forth a working hypothesis which seems to them fairly to cover the facts. They will allow that there may be other hypotheses, adding that all are as provisional as their own—that all are liable to revision—that the moment may come when views of the past which have long been propounded and accepted may have to be thrown overboard. On these matters of interpretation and significance each generation may think differently from its predecessors, and wish to re-write history after its own mind. Truth is here not an absolute but only a relative concept. It is as much as we fallible human beings are permitted to see, and are clear-sighted and honest enough to observe. Whether we can induce others to accept it permanently is doubtful. Whether we have unveiled part of the nature and purpose of the universe is incalculably more doubtful still. And yet, in the last resort, any one of us may find himself so dominated by a sense of the eternal in the changing processes of time that he will feel compelled, in obedience to the vision he has seen, to assert that there is in the affairs of men a pattern wrought by the right hand of Omnipotence.

EXCAVATIONS AT LEGLAND HORNED CAIRN.

By O. DAVIES.

The horned cairn of Legland lies at an altitude of over 400 ft. on the southern slope of Bessy Bell Mountain, about six miles south of Newtownstewart and the same distance west of Omagh⁽¹⁾. It is omitted from the 1907 O.S. map, and was discovered about 1937 by Mr. W. Ross Henderson. The owner, Mr. P. McCrossan, very kindly granted permission to excavate, but owing to other work I was unable to complete the investigation until March, 1940. The work, which was carried out under the auspices of the Archaeological Section, lasted a fortnight, one man being employed.

The monument lies at the meeting-place of three fences. Until recently it was covered by a great height of cairn (the owner says 20 ft.), which obscured the structural features. The consequent absence of tradition or superstition suggests that such beliefs are often of recent origin and not a genuine legacy from the megalithic period, but they owe their rise to the appearance of dismantled megaliths. About twenty years ago the cairn and some of the uprights were removed and broken up for road-metal. It is a great pity that valuable evidence regarding the roofing of horned cairns was in this case destroyed so recently; but I collected from the owner some information on the subject, not wholly coherent.

The cairn is said to have extended as far as the fence in front of the forecourt, near point A. It would thus have completely enveloped and sealed the entrance, and no horn-stone would have been visible. Its other limits were traced by the excavation (see plan). It covered a patch of rough ground now overgrown with thorns, and was almost circular about fifty feet in diameter. Its limits were traced by the outermost bedded stones. Apart from two slabs on the south-east, which may have been set up recently, there was no sign of peristalith and no stone-pits; but it is clear that the cairn must have been bounded by a wall of considerable height, especially on the west, if it was to envelop the end-stone which protrudes six feet and stands about seven feet from its edge.

On top of the cairn, above the forecourt, lay the large rounded stone now in the forecourt and shewn on section MB. The chambers were completely filled with loose boulders and roofed with cross-slabs, many of which were slid off and placed against the south side-wall to make a fence. The jambs are on the whole taller than the sidestones, but have no shoulders to receive corbels. Most of the sidestones are flat-topped, save on the north of Chamber I, where they seem to have been sledged and perhaps damaged by the falling roof. The south-west sidestone of Chamber II is pointed; but Mr. McCrossan is positive that the large slab resting in the chamber had spanned the two low uprights and thus formed a subsidiary cist, so that the sidestone and the even taller end-stone would have been excluded from the roofing scheme. This curious arrangement was perhaps due to the ritual exaggeration of the end-stone, and will be discussed below.

The tops of the sidestones are fairly level, and could have been covered with cross-slabs without corbelling. But this would have implied a span of about eight feet, and the Irish megalith-builders seldom used slabs of such length. Allowing that many of the roof-stones may have been smashed at the demolition, nevertheless none of the slabs in the fence are nearly so long. The lintel of the interior portal, now leaning at the east end of Chamber II, and formerly supported

(1) O.S. Tyrone 25, 7.8" east, 11.9" south.

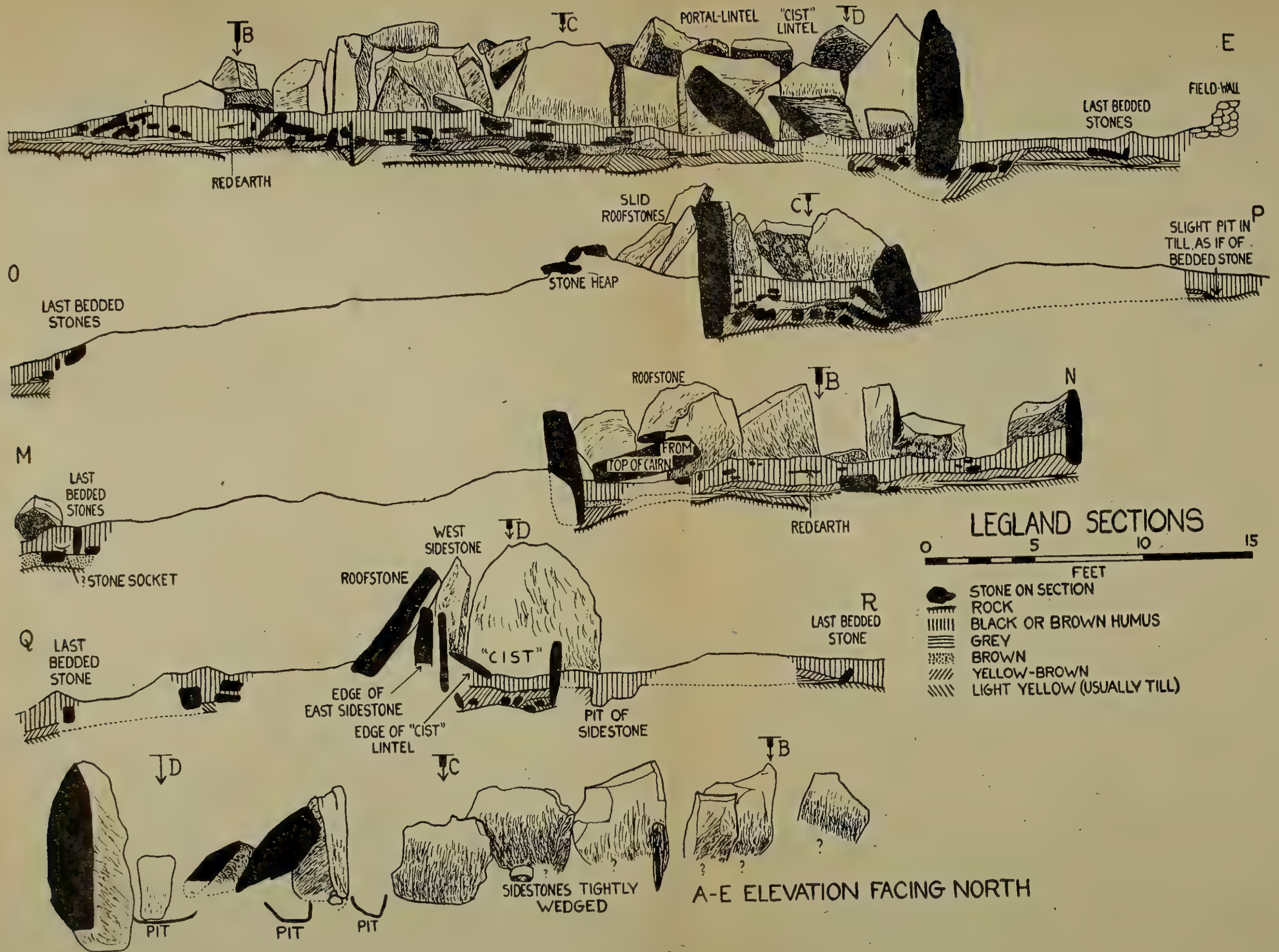


Fig. 2

on the jambs and wedged on the north by a small stone, is just over six feet long. This is ample to span the portal, but suggests that the stone, which is a good deal wider than the northern jamb, rested partly on a corbel projecting from a side-stone. It is thus likely that the roof contained one tier of corbels, like Clady Halliday. The wider rounder slabs in the fence probably acted in this capacity, the longer and narrower ones being roof-stones.

Almost all the uprights are of quarried local schist containing quartz veins. They are well preserved, save for the south-eastern sidestone of Chamber I, which has split. Whereas at Clady Halliday the rounded forms of ice-worn boulders seem to have been preferred, at least for stones that would be visible, the complete sealing of Legland cairn made these unnecessary; and as Legland lies at some distance from the Newtown Stewart moraines, such stones may have been difficult to procure. The only exception is the stone which lay on top of the cairn, which is of schist, apparently ice-worn.

Three of the northern sidestones were missing, but their pits were located. The others are bedded fairly shallow into till (especially the north-eastern stone of Chamber I), sometimes into rock-crevices. The rock outcrops a short way south-east of the monument, and beyond this point is a hollow, which may mark the quarry used by the megalith-builders. The occurrence of rock close to the surface over part of the site (see section AE) must have made construction difficult.

Between some of the sidestones are considerable crevices. They were not faced with dry walling, but loosely blocked with stones resembling those of the cairn. This careless workmanship contrasts with the skilful facing of the chinks at Clady Halliday.

The forecourt is bounded by three small and unimposing hornstones on each side, one nearly contiguous to each jamb, the other two spaced. Between them was cairn-material, but no faced walling. Those uprights which were tested were found to be bedded deep⁽²⁾, the one on section BM rests in a small hollow in the rock and is packed with a slightly podsolised yellow earth. The first horn-stone on the north leans inwards (see section BN and elevation), and is supported on the inside by loose stones, the usual filling of brown earth being absent in its vicinity. Probably therefore an attempt was made to dig it out.

On the south, where I could test, I found that the forecourt extended considerably beyond the uprights. As it was covered by stones, presumably there was no sharp boundary between cairn-area and portal-area. But next to the last upright is a low stone, protruding six inches from turf and not deeply bedded, which looks like a kerb stone. Its top may have been sledged.

The forecourt was partly occupied by an irregular stone wall (base on section AB), which may be the remains of the cairn-edge; it has mostly been removed. Against it were leaning broken roof-slabs, and another stood on edge in the centre where the area was clear. In the outer part the beginning of the ancient deposit was marked by the emergence, just above rock, of a grey layer containing charcoal (inv. no. 11), fragments of caked burnt earth, a few stones, and several burnt flints (inv. nos. 9 10 13 14 15 18). The grey, which was also found at the sides and back of the cairn (see sections), may be an old turf-line or a trodden floor. It continued as far as the yellow-brown sealing of the

(2) The second on the north appears shallow on section BN, but the line intersected only its corner, and it has a central point packed round with stones.

inner-forecourt⁽³⁾, though towards point B charcoal became very scarce in it. There may therefore have been a ritual fire at the outer edge of the forecourt, in which flints were deposited.

On top of the inner part of the forecourt were many boulders, which may have been thrown off the fields, and below them packed chips of shale, perhaps from disintegrated stones or forming a sealing. Among them at a high level were a few patches of burnt red earth (a large one is shewn on the sections close to point B). At a depth of rather over a foot was found a layer of yellow-brown clay with large, tightly-packed stones protruding. On and through it was a little charcoal (inv. nos. 1 3 16). This material was homogeneous with the clay and stones sealing the whole of Chamber I; round the sill it was packed very deep, and as in Chamber I it contained small pockets of fully burnt bone, unidentifiable with certainty but probably human (inv. nos. 3 4 5 7 16 17 24), and one flint-chip, apparently unworked (inv. no. 16). The appearance of pyre-material, which was normally placed inside the chambers, is unparalleled in the forecourt, and shews that the latter had lost its function and had become incorporated in the cairn. This sign of degeneracy is of interest for tracing the devolution of the horned cairn into the simple circular cairn, and will be discussed more fully below. The entrance-jambs were set upright before the yellow-brown was laid down. This earth, including fragments of bone, was packed round the outer side of the north jamb, thus extending into what is normally described as cairn-area. Large sealing-slabs are not found more than $4\frac{1}{2}$ ft. beyond the sill on section BC (for limits see plan).

Below the yellow-brown was a thin grey-yellow layer containing charcoal (inv. no. 6) and a few small stones, perhaps set too irregularly to be described as a cobbling. At one point in it, north-west of point B, was a shallow bowl-shaped black layer, embedded in yellow till and probably due to burning.

Both portals are unevenly constructed, with one jamb projecting across the chamber and the other set on the line of its side-wall, so that the entrances do not lie on the long axis of the chambers. This degeneration of the jambs probably implies a late date, and is uncommon in horned cairns, but has been noted at Ballynamona (Waterford)⁽⁴⁾. The entrance-portal is blocked by a deep-set sill, partially packed with light-yellow till-material replaced (section BC). From the interior portal, the lintel has been slid off and lies in the chamber. There is no sill, but the yellow-brown sealing of Chamber I with tightly wedged stones ends sharply and does not continue into Chamber II (section CD).

Chamber I is flanked on the south by three uprights, of which one has split (section AE and Elevation), on the north by the entrance-jamb and two other stones; the pit of a third was discovered. The low sidestone on section CP (see also Elevation) has probably been broken with a sledge-hammer; a large block lying below it may well have been part of its top. The sidestones are carefully packed, especially those on the north, which incline inwards; for this reason it was considered inadvisable to probe to the bases of more than a few of them.

Apart from one large slab in the south-eastern quadrant, which had probably fallen in from the roof, Chamber I was open when we started to dig. The surface-filling consisted of black humus, with many small flat stones from just below

(3) The grey-yellow beneath the yellow-brown in the inner forecourt seems to be part of it, and not identical with the outer grey. This grey probably appears on section BM near the horn-stone, so the yellow-brown covered a semi-circular area in front of the portal. The grey does not overlie pure till.

(4) *J.R.S.A.I.*, lxviii (1938), p. 260.

turf⁽⁵⁾. At a depth of two inches the colour of the earth changed to dark brown, and passed, in a series of fairly sharp transitions, to brown, yellow-brown, and in the eastern part of the chamber to grey-yellow (see sections AE OP). The dark brown earth is compact, and contains many wedged stones which form a sealing of the floor and continue downwards through the yellow-brown. There was no sign of disturbance, and that the dark brown was in general identical with the yellow-brown, stained by vegetation since the removal of the roof, is proved by the occurrence in it of pockets of bone resembling those of the yellow-brown itself (inv. no. 47). The sealing stones were normally aslant towards the centre, often in several tiers, and resting on what might be called a rough and irregular paving of thin horizontal slabs. The sealing-stones were mainly of medium size, mostly boulders; only two of the slabs were over four feet long.

In the eastern part of the chamber, as in the forecourt, was a well-marked grey layer with a little charcoal below the yellow-brown (section BC). In it no finds were made; but in places it was blackened as if it had been burnt. Below it was a cobbling set into yellow till, so it may represent the accumulation of dirt on the floor during the construction of the monument. It disappeared a short way east of point C, where close-packed stones without much clay directly overlay the rock (section AE).

The brown and yellow-brown clay which formed the principal part of the filling of the chamber (sections AE OP) contained numerous small pockets of burnt bone and scraps of pottery in all parts, but especially round point C, to the south-east of which were considerable signs of burning, such as reddened earth, and farther out charcoal. All the pottery found in the monument came from this layer in Chamber I. There was further a fair amount of charcoal (inv. nos. 25 31 63 65 83) and a few worked flints. As frequently in horned cairns, the pyre-material and subsoil seem to have been shovelled in hot and sealed with stones. It would contain the sherds of pots broken by the heat, in addition to fragments of burnt bone scattered indiscriminately. The flints, which here as often are mainly broken, may also have been placed on the pyre, but usually not in sufficiently close contact with the hottest portions to become burnt or patinated. The chances are that as the wood began to burn, if not before, they would slip down among the ashes, where the temperature would be comparatively low.

The yellow-brown in parts rested on rock, more frequently on bright yellow clay, which contained a little sporadic charcoal in the top two inches (sections AE OP). It seems to have been the original till; where the rock was high enough to have been completely cleared for the construction of the monument, the yellow survived only in crevices.

Chamber II is shorter than Chamber I, and bounded by two stones on each side, with the addition of the jamb on the south. Both the northern sidestones had been removed, but their pits, lined with a few wedge-stones, were found (section QR, Elevation). The more westerly had probably been enlarged in extracting the stone. The end-stone is a huge block, whose pointed base descends 2½ ft. below turf (section DE, Elevation), the large pit being packed with boulders.

In the rear part of the chamber, beside the end-stone, are two small uprights (sections DE QR, Elevation), formerly covered by a capstone, which would have overlapped six inches at either end and was lying in the chamber. As has been

(5) Near the surface was charcoal (inv. no. 41), part of a horseshoe and a piece of iron-slag (inv. no. 8), and many unburnt animal-bones, of which only the best specimens were kept. They included three teeth of ox (inv. no. 74) and three of deer (inv. no. 108), also other bones of ox.

stated, there was probably no roof over the large sidestones at this end of the chamber: I was told that there had formerly been digging between the small uprights; but except for one small hole, the yellow-brown clay below the black top-soil looked intact, and was covered by a paving of small slabs. Nothing was found in it, save patches of black scoriaceous earth without charcoal just beneath the end-stone. In the base of the yellow-brown between the uprights were tightly packed stones, whereas the rest of the chamber lacked anything corresponding to the stone sealing of Chamber I.

A "cist" of this type within a chamber cannot be closely paralleled in any horned cairn yet excavated. There were traces of something similar at Largantea⁽⁶⁾, and perhaps in wood at Loughash⁽⁷⁾. It is not unlikely that the structure at Legland may have been influenced by beaker-methods. It is further remarkable that there was practically no pyre-material in Chamber II. At Aghanaglack there was reason to suggest that special parts of the body, probably vital organs, were deposited separately in the inner chambers. Some similar ritual may have been practised at Legland, whence the scoriaceous earth in the "cist."

Beneath a black surface layer containing bones of ox and deer, Chamber II was filled with yellow-brown clay. In it, and on top of the yellow, were occasional charcoal fragments, but no stones except at the sides in the pits of the uprights. About a foot south-east of point D was an elliptical hole extending 8 ins. into till and filled with black earth. It did not resemble an animal-burrow, and to the south-west of it the till sank suddenly about 3 ins., and traces of a greyish layer appeared above the yellow-brown. This hole may have been the socket of a post with sharpened base, connected with the adjoining "cist." But the fallen lintel prevented a thorough exploration of the area.

There can be no doubt that the Legland cairn is a late and degenerate specimen. Its parallels are not with the more perfect examples, such as Clontygora and Clady Halliday; and the finds belong principally to the advanced bronze-age, and resemble those from monuments like Loughash. At Legland the component parts of the chambered cairn are beginning to lose their functions. The forecourt was incorporated in cairn; in earlier specimens it was left open (Clontygora), and gradually the sealing of the entrance (as at Goward and Clady Halliday) extended over it (Brownodod). This would cause its disappearance, as in the tripod-dolmens and related types. The carelessly built jambs and the exaggerated endstone are also late features. The latter is found at Mourne Park, at Legland it had lost its structural function and presumably retained only a ritual meaning. The earlier horned cairns have at least three chambers; Legland, like Mourne Park and Ballyalton, only two. The exaggeration of Chamber I is unusual; but this feature may be developed from Clady Halliday, where the first chamber was broader if not longer than the others. The flattened horns of Legland, enclosing less than a semi-circle, are paralleled at Ballyalton, but not in the earlier monuments. The "cist" we have discussed. The circular cairn is found only at Mourne Park, where however the horns are excrecent; nearly all horned cairns had long cairns. This last feature may indicate either conflation or degeneration; the beaker-cairn of Cashelbane is circular with incurving entrance, not unlike the forecourt of a horned cairn but without uprights. Thus, some of the parallels to Legland are in west Tyrone; that others are more distant need not surprise us, for the population of that age was probably semi-nomadic, and could easily carry developments from one part of Ulster to another.

(6) *U.J.A.* III i (1938), p. 164.

(7) *U.J.A.* III ii (1939), p. 254.

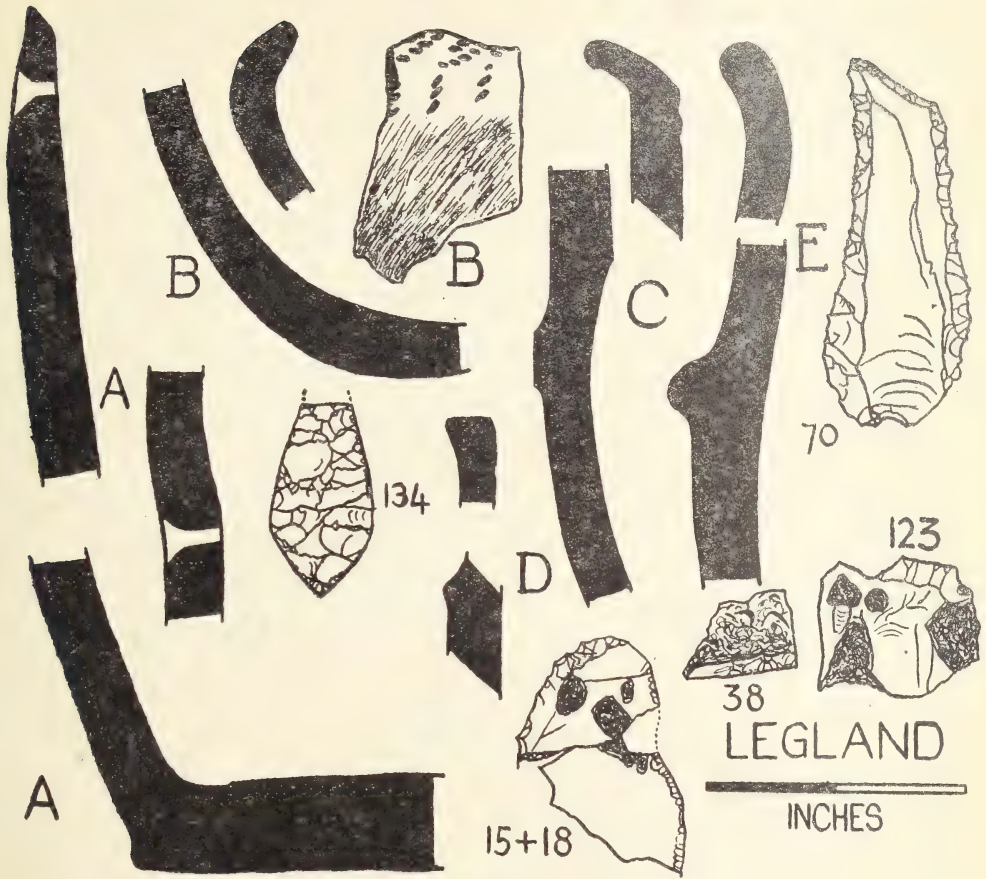


Fig. 3.

THE FINDS.

Many sherds were found in all parts of Chamber I. They are mostly small and badly decayed, the edges in particular being so weathered that few joins could be discovered. Nothing like the whole of any one pot is represented. Many of the attributions, especially to pots C D and E, are no more than tentative. A large number of small sherds could not be assigned with certainty to any pot.

Pot A consists of nearly a hundred fragments of a very coarse vessel. They were found in all parts of the chamber, and at all levels in the yellow-brown, down to just above the rock. The colour is red-brown, yellow-brown or dark brown, the surface uneven, unpolished and undecorated. The biscuit is usually dark, with large grits. The flat base varies from .5 to .7 in. thick, apparently thickening towards the centre; its external diameter was $6\frac{1}{4}$ ins. There are traces of caked soot on its inside. The walls are usually about .4 in. thick. They rose at about 80 degrees from the base with a slight splay; near the rim they seem to have been almost vertical, and some sherds suggest a vestigial waist. The height is unknown, the internal diameter of the rim was approximately 8 ins. The rim is bevelled; some pieces suggest that there was very shallow finger-tip ornaments along the sharp angle. About .6 in. below it was a row of conical perforations,

roughly bored from the outside, of external diameter 4 in., internal 1.5. Two of them which fit are 1.1 in. apart. Remains of five survive, there were probably others all round the rim. There was apparently a lower row, of which three are preserved on sherds which do not seem to be from near the rim but from the waist. There is no evidence as to their distance apart; it is likely that they were not less than 3 ins. below the rim.

The heavy coarse fabric of this pot recalls some of the flat-bottomed pots from Loughash and Carrick East; but it lacks their hammer-head rims. The perforations, intended for suspension, are hardly a characteristic feature; but we may cite one of the pots from Dunloy. The bevelled rim is a purely beaker character, as at Largantea, and the vestigial waist may have the same origin, however much the coarseness, absence of decoration, and basal splay diverge from pure beaker-types. The possible finger-tip ornament on the rim is paralleled at Loughash, and should not be earlier than the late bronze-age. Thus this pot, like the whole of the find-complex from Legland, seems to represent a hybrid of beaker and other elements, which will be discussed at the end of the paper.

Of pot B there are only a few fragments, found in most parts of the chamber. The colour is grey or yellow-grey, the outer surface smoothed and slightly polished, with a rather soapy feel probably due to the schist particles in the clay, much of the inside is very rough with protruding schist fragments. The vessel was apparently a round-bottomed bowl with incurving rim. The thickness of the base is .5 in., of the walls .3-.38 in., the rim-diameter seems to have been approximately 5 ins., the height was probably less. The bowl was ornamented on the shoulder with cord-impressions, apparently somewhat irregular, though too little survives to reconstruct the scheme.

Somewhat similar bowls with restrained cord-decoration were found at Aghanaglack and Boviell. The ornament is less exuberant than on the proto-food-vessels from Island MacHugh, which normally have heavy rims and grooved necks; but the use of cord-impressions is probably derived from Peterborough ware, whose influence is well represented in the Island MacHugh collection. The shape of the pot under discussion has probably a different origin, in the Becharra bowls which have occasionally been found in Ulster. If these lost their necks, they could well degenerate into the bowl with incurving rim such as we have at Legland. Some Becharra pots, as from Ehenside Tarn (Cumb.)⁽⁸⁾ are ornamented only on the shoulder.

The sherds of pots C D and E are not easily distinguishable. There are three types of rim and apparently three types of shoulder; but the impossibility of reconstructing any profile has made it necessary to combine them according to the evidence of fabric, not always a certain guide.

Under pot C I have grouped all sherds with red or red-brown rugose surface, red-grey inside; some probably belong to pot D. These sherds come largely but not exclusively from the south-eastern part of the chamber. The thickness is .35-.5 in., normally about .4 in., save for the rim, which is not more than .2 in. thick. The diameter could not be determined. The pot was probably a round-bottomed bowl with everted rim, which on the interior joins the neck at a sharp angle. The shoulder has degenerated into raised band .45 in. wide and .05 in. high, not modelled or organically connected with the body.

Such highly everted rims are found in England. In Ireland they probably descend, as does the vestigial shoulder, from the flattened rims of the later

(8) *Arch. J.* lxxxviii (1931), p. 147, fig. 22.

neolithic bowls. A rather similar rim was found at Largantea, pot C3. Its significance was not at that time understood; we now see that it was a neolithic survival, and its occurrence among pottery which otherwise seemed wholly of bronze-age types need no longer surprise us.

Very few sherds can be assigned with certainty to pot D. Both surfaces are reddish and rather rugose, slightly polished, the biscuit is yellow-grey and crumbly. The thickness varies from .3-5 in., with probably a considerable thickening at the shoulder. The rim is flattened and splays very little, one piece has a slight ridge-shoulder. All the sherds are decorated with shallow horizontal grooves, made irregularly with a blunt stick; they are too small to illustrate this grooving profitably.

The flattened rim is unusual; a close parallel, if it is a rim, is Ballyedmond pot E. The shape may be influenced by the bevelled beaker-rims, though it is not identical with them. The grooving may be derived from horizontal beaker-decoration, such as was found at Cashelbane, where a blunt stick was sometimes used instead of a fine-tooth comb. It was there more regular, with some attempt to make the lines encircle the pots.

Pot E consists of a good many fairly fine sherds, found in the yellow-brown clay in all parts of the chamber. The colour is red or dark, the surface usually smoothed and slightly polished, sometimes weathered. The biscuit is dark in the centre with a little small grit. The normal thickness is about .35 in., on some pieces probably from near the base up to .5 in. The pot was a wide round-bottomed bowl, whose diameter cannot be determined. The rim is rounded and slightly bent outwards. There seems to have been no shoulder, but in its place a well-marked ridge, perhaps on the belly.

The pot has neolithic affinities, especially in the rim. The belly-ridge seems to be a degeneration of the angular shoulder, and was found, in a more angular form, on pot F from Loughash.

Despite the apparent lateness of the pottery, the finely worked flints which were unearthed indicate a skilled tradition derived directly from neolithic times. One or two flints are unworked, and there are many chips so heavily burnt that it is almost impossible to determine their original form. Inv. no. 134 (fig. 3) is a finely worked leaf-shaped arrow, with broken tapering point; both surfaces are carefully flaked, the maximum thickness is .15 in. The burnt pieces inv. nos. 59 and 28 seem derived from the same or from two similar arrows. Both are flakes on both sides and especially along the edges; one has a point, the other two tapering sides which may have formed part of the butt. The burnt pieces inv. nos. 38 and 123 (fig. 3) may have belonged to the same thin blade, maximum thickness .24 in., which was apparently flaked along both edges; they are too wide for an arrow, but may have been part of a javelin. The slug-knife, inv. no. 70 (fig. 3), has one flake-surface on the under-side and two on the upper, with maximum thickness .29 in., and bulb at butt partly removed; it is chipped steeply along both edges and to the irregular point. There are also four hollow scrapers, made, as usual, from thin wide flakes⁽⁹⁾.

(9) Inv. no.	Hollow width.	Hollow depth.	Remarks.
27			Shallow hollow broken.
56	.96 in.	.15 in.	Flake rather thicker and more steeply chipped than usual.
98	1.1 in.	.26 in.	Long flake, with broken second hollow in one corner.
130	.8 in.	.09 in.	

In the outer part of the forecourt were a number of burnt flints, some of which have been fitted together. Inv. nos. 15 and 18 (fig. 3) are part of a pear-shaped blade of maximum thickness .18 in., much broken and badly burnt. Both sides are formed of a single flake-surface, the upper is trimmed all round the edge. Inv. no. 9 seems to have belonged to a large flat blade with trimming on the edge. Inv. no. 13 consists of two broken pieces, apparently parts of a blade with fair-sized flakes along the edge. Inv. no. 14 is a large thin flake, roughly parabolic, shewing traces of flaking on one side which is not broken. The underside is a flake-surface, the upper apparently several, the maximum thickness .27 in. It was probably a blade or scraper, but too little remains to draw or identify.

The bones have been most kindly examined by Professor Walmsley. The most important collection, from Chamber I, consists mainly of small spicules of well incinerated human bone. It was possible to recognise parts of the vault of the skull, the glenoid fossa of the scapula, probably female, and the middle phalanx of a toe. Duplicate parts were not found.

The complexity of the finds at Legland makes it impossible, at the present state of our knowledge, to venture more than a tentative discussion. Apart from freaks, hybrids and degenerate specimens, four principal megalithic types have been recognised in Ulster. Legland is clearly most closely akin to the horned cairns. Its circular cairn may indicate influence from the passage-grave culture, but possibly not from that branch of it which occupied the Boyne valley, but like Mourne Park from across the Irish Sea. The influence of the gallery-grave cannot be traced. The fourth type consists of certain beaker-modifications which have been identified in northern Ulster; the double portal is absent at Legland, but the internal "cist" undoubtedly belongs to this category.

We have distinguished at Legland the influence of five types of pottery, all of which have previously been found in megalithic connections. Of these, the least noticeable, and probably the earliest in date, is the ware with Peterborough affinities, found at Island MacHugh, Lough Enagh, Lambay Island and on Dundrum sandhills, and in a megalith at Ballyalton. The fact that Island MacHugh has yielded no bowls typical of the horned cairns suggests that its occupation is earlier than the arrival of the megalithic culture in west Tyrone. These bowls, which seem connected with Windmill Hill ware, but may also have Mediterranean parallels, are at present the commonest class of Ulster neolithic pottery. Only degenerate examples were found at Legland, which however yielded the leaf-shaped arrows normally associated with them. Legland shewed slight influences from Beacharra pottery. The last two classes, beakers and heavy flat-bottomed pots, are certainly not older than the bronze age. Of beaker-influence Legland shewed several indirect traces. The coarse pot A is of a type which we should hardly expect earlier than the late bronze-age. It should have been introduced by the invaders of that period; but it may yet be proved that before that time Ireland had developed a native coarse ware, much resembling the proto-Hallstatt wares of England but in no way connected with them.

The complicated mixture of the Legland finds is typical of the ethnic mixture of the same period, so far as it has yet been possible to establish ethnic types from our fragmentary evidence. While a fairly strong beaker-tradition was implanted north of the Sperrins, it is characteristic that to the south of these mountains the influence is much weaker and more sporadic. We may note also that many of the parallels to the Legland pottery are drawn from the non-beaker elements in those cairns which have yielded beakers. It would be hazardous to guess a date for Legland, save that it must be fairly late; for though we can distinguish the primary type of the horned cairns, it seems that they developed not only by diminution of size and disintegration of parts, but also by expansion especially of length.

ANNUAL MEETING OF SOCIETY.

The Annual Meeting for the Session 1939-40 was held on Thursday, 21st November, 1940, in the Old Museum Buildings, the chair being occupied by Dr. S. W. Allworthy, M.A., Vice-President.

Apologies for inability to attend were received from the President (Professor Flynn), Major Berry, Messrs. A. A. Campbell, W. M. Crawford, E. J. Elliott, R. S. Lepper, Dr. E. E. Evans, Professor W. B. Morton and Captain Young.

The Chairman called upon the Hon. Secretary to read the notice convening the meeting and also the Annual Report of the Council for the past year.

ANNUAL REPORT, 1939-40.

The Council desire to submit their report for the 119th Session ending on the 31st October last.

The year has not been an active one and the number of meetings was curtailed owing to the outbreak of war.

LECTURES.

Three lectures were given in the afternoon. On the 12th December, 1939, there was a recital by Mr. Edward R. Broadhead on "Dramatic and Humorous Moments with Famous Authors," with character studies in costume.

Mr. D. Lindsay Keir, M.A., President and Vice-Chancellor of Queen's University, delivered an interesting lecture entitled "Can History Be True?" on the 29th January, 1940.

On the 18th April, 1940, Mr. Oliver Davies gave an interesting discourse on "Island MacHugh, Baronscourt," being a resumé of the history of Ulster as illustrated by the excavations conducted by Mr. Davies of this unique site, and which had been made possible by the generous permission of His Grace the Governor, the Duke of Abercorn.

A fourth lecture had been arranged and was to be given on the 13th February last by Dr. J. M. Batista y Roca of London on "The Travels of Arthur Young in Catalonia (1789)" but owing to transport difficulties, due to the war, the lecture had to be abandoned.

The attendances were regarded as good, considering that the meetings had been changed over to the afternoon, a time which did not suit the majority of members.

LECTURES, 1940-41.

Your Council, at the suggestion of the Belfast Naturalists' Field Club, has had under consideration the question that the two societies might co-operate in arranging a joint lecture programme for the coming winter; and after careful consideration, your Council decided to make arrangements for holding meetings together.

With this end in view, an interesting programme has been arranged.

Your Council anticipates a successful session.

The lectures during the coming session will be given on Saturday afternoons.

A printed programme of the lectures has been sent to members, and members are asked to preserve it, as it is proposed not to send out notices of the meetings, owing to the increased cost of printing and postage.

The two societies will remain entirely distinct in constitution and government, in accordance with the Educational Endowment (Ireland) Act under which our Society is administered.

It is interesting to note that the idea of the two societies co-operating is not a new one. As far back as the year 1869, joint meetings of the two societies were held. At the opening meeting given on the 10th November of that year, Dr. (afterwards Sir) Wyville Thomson, F.R.S., the President of the older Society and a Professor at Queen's College, delivered an address on "The Aims of Natural History Societies and the use of local Museums."

It is also interesting to note the reason for the changed circumstances. The Society's Museum collections were badly in need of attention and many members of the Field Club were willing to undertake to act as Hon. Curators; and further we read: "Those who in its (the Society's) early days had some little leisure, some time for study and thought between the posts, are now eternally at the mercy of the telegraph boys, men who thought twice before they went to London, now go twice to London before they have time to think. Nine-tenths of those who were likely to become members of the old Society now live out of town and their coachmen won't let their horses stand about in the night air. People are so busy with their own work, or so tired when by any chance they get an hour's relief, that they have no time to write papers for Natural History Societies."

If such were the conditions in 1869, it is hardly to be wondered at that it is difficult to obtain large audiences to-day.

EXCHANGES.

Your Council much regret the continued absence from the meetings of the Society, through ill-health, of the Hon. Librarian, Mr. W. M. Crawford.

Two new exchanges have been established, the National Geographical Society, Washington, and the Irish Historical Society.

Most of the scientific material published in Great Britain and the U.S.A. has been received but publications from European countries have not yet reached us, due to hostilities.

Your Council decided to transfer, on loan, 37 volumes of the United States Year Book of Agriculture to the Agricultural Department of Queen's University, as well as future issues as received.

It was felt that these volumes would be serving a more useful purpose if conveniently available to students and members of the staff. Arrangements have been made that Society members will have free access to the volumes should they wish to consult them.

ARMOUR PLATE.

In June last, owing to the demand for metal required for war purposes, your Council decided for patriotic reasons to dispose of the Steel Armour Plate which has stood outside the building since 1889.

Many members expressed regret at the removal of this old land mark.

It was unveiled on the 18th April, 1889, by the then Mayor of Belfast, Mr. C. C. Connor, M.A., before a large representation of the general public, including Sir Wm. Thomson (afterwards Lord Kelvin) and Lady Thomson.

Sir William alluded to the discussion which was taking place among naval architects relative to the question of armour and non-armour ships.

Sir Edward Harland moved a vote of thanks to all those who had assisted in the various operations and Professor J. D. Everett, F.R.S., as President of the Society, seconded.

The plate has not yet been removed, but the purchasers propose to remove it at an early date.

THE BUILDING.

Your agents, Messrs. Davison & Dickey, report that the premises have continued fully occupied throughout the year, and no rent has been lost through vacancies. One change of tenancy took place. The Northern Drama League left on 1st February, 1940, but the room was immediately taken on behalf of the Ulster Hospital Libraries Service from that date.

Notice to Quit on 1st February, 1941, has been received from the Belfast College of Nursing, but it is hoped that it may be possible to find a suitable organisation for the room at an early date. A temporary reduction of £10 per annum has been made to the Ulster Academy of Arts.

The temporary lettings show a slight increase on the previous year at £17 17s. 0d., apart from what is received from the Belfast Naturalists' Field Club.

Now that the public are becoming adapted to "black-out" conditions, your agents hope that members will continue to make known the suitability of the rooms for meetings.

SOCIETY'S REPRESENTATIVES.

Your Council continues to be represented on three Committees or Councils in Belfast.

Professor Gregg Wilson is a member of the local Committee of the National Trust for Places of Historic Interest and Natural Beauty and is now the Chairman of that Committee; Dr. E. E. Evans continues as your representative on the Ancient Monuments Advisory Council in which he takes a practical and active interest, while Mr. E. J. Elliott represents your Council as an added member of the Libraries, Museums and Art Committee of the Belfast Corporation.

ELECTION TO COUNCIL.

The meeting will be called upon to elect five members of the Council. The following are due to retire by rotation, having served for three years: Dr. S. W.

Allworthy, A. A. Campbell, W. M. Crawford, A. Deane and Dr. E. E. Evans. Mr. Crawford, whose absence from the Council meetings is entirely due to continued illness, is willing to let his name stand for re-election. The remaining four are eligible and offer themselves for re-election.

ARCHAEOLOGICAL SECTION.

Field work of the Archaeological Section has been at a standstill, due to the outbreak of hostilities, but it is hoped that next summer may furnish opportunities to resume normal activities in that direction. Likewise due to the war, no lectures were given during the winter months by the Section, but a number of lectures has been promised and will be given as soon as opportunities offer.

SHAREHOLDERS AND MEMBERS.

The number of Shareholders and Members now stands at 165 as compared with 168 in the previous year. Your Council repeat that every effort should be made by members to increase the membership of the Society and thereby aid in increasing its usefulness.

FINANCIAL STATEMENT.

Your Hon. Treasurer, Mr. W. B. Burrowes, will submit the Statement of Receipt and Expenditure which will be placed before the Local Government Board Auditor.

The Honorary Treasurer (Mr. W. B. Burrowes) submitted the Financial Statement of Receipt and Expenditure.

The past financial year, he said, commenced with a balance due to the Bank of £100 7s. 4d. This had been since reduced to £35 18s. 4d. at closing of accounts, which is satisfactory.

The rental in the year under review amounted to £194 8s. 5d. as against £202 2s. 5d. received 1938/1939—a slight reduction owing to upkeep expenses. Subscriptions received amounted to £50 19s. 4d. as against £63 4s. 0d., a reduction of £12 5s. 0d., which was accounted for by outstanding subscriptions and resignations. It was hoped that this would be adjusted in the coming year by increased membership.

ADOPTION OF REPORTS.

It was moved by the Chairman and seconded by Mr. F. J. Cole that the reports now read be received and adopted. These were passed unanimously.

ELECTION TO COUNCIL.

On the motion of Captain Turner, M.C., seconded by Mr. A. H. Davison, it was unanimously agreed that the following Shareholders and Members be re-elected for a further term of three years, namely: Dr. S. W. Allworthy, A. A. Campbell, W. M. Crawford, A. Deane and Dr. E. E. Evans.

There being no further business to transact the meeting concluded.

ARCHAEOLOGICAL SECTION.

ANNUAL MEETING.

The Annual Meeting was held in the Old Museum Buildings on the 13th December, 1940, Col. R. G. Berry presiding.

The Annual Report as approved by the Committee was read and agreed upon, and the Hon. Secretary instructed to forward it to the Council for inclusion in the Society's Proceedings.

It was reported that the emergency restrictions imposed in the autumn following the outbreak of hostilities made impossible the winter's programme of lectures.

Field work too during the summer had been somewhat curtailed but it is hoped that next summer may furnish opportunities to resume normal activities in that direction. In the spring Mr. Davies carried out, under the auspices of the section, an excavation at the horned cairn of Legland near Newtownstewart. The cairn proved to be of a most interesting, if rather degenerate, type, and yielded some rather unusual pottery.

In the absence of the Hon. Treasurer the Statement of Accounts submitted was placed before the meeting and approved.

On the proposition of Mr. F. J. Cole, seconded by Mr. Greeves, Col. R. G. Berry was re-elected Chairman, Mr. S. D. Thompson (Hon. Secretary of Section) and Messrs. A. A. Campbell, E. E. Evans, J. T. Greeves, R. S. Lepper and J. Skillen were re-elected on the Committee. Mr. Cole was elected to the Committee on the proposal of Mr. Deane, seconded by Mr. A. A. Campbell, and with Dr. S. W. Allworthy (President), W. B. Burrowes (Hon. Treasurer), A. Deane (Hon. Secretary) and O. Davies constitute the Committee for the year 1940-41.

The position of the Section at the moment in regard to Committee meetings and general activities was raised by the Hon. Secretary and it was decided that the Chairman, in collaboration with the Hon. Secretary, should assume responsibility during the present emergency, it being understood that the advice and co-operation of the Committee individually or collectively was available if and when required. The Hon. Secretary undertook to acquaint members of the Committee of any decisions reached if in the view of the Chairman and Hon. Secretary the subject matter merited such action.

This concluded the business.

THE ACCOUNT OF THE BELFAST NATURAL HISTORY AND PHILOSOPHICAL SOCIETY
FOR THE YEAR ENDED 31st OCTOBER, 1940.

RECEIPTS.		PAYMENTS.*	
To Subscriptions	£50 19 0	By Balance as per last Account	£100 7 4
" Dividends	10 16 0	" Rent, Rates and Taxes	16 8 3
" Rents	194 8 5	" Insurances	8 5 9
" Miscellaneous Receipts:—		" Salaries, Wages and Insurance Stamps	49 11 9
Archaeology	£13 0 0	" Fuel and Light	29 9 6
Sundries, Reports, etc.	1 9 0	" Other Payments:—	
Balance against Account on 31st October, 1940	14 9 0	Printing and Stationery	£59 18 6
	35 18 4	Advertising	8 18 8
		Lectures	6 6 0
		Archaeology	6 7 5
			81 10 7
		Sundry Expenses	3 2 6
		Lanterns	2 0 0
		<i>Irish Naturalists' Journal</i>	6 0 0
		Audit Fee	1 1 0
		Bank Interest	5 6 5
		Postages	1 10 0
		Bank Charges	1 1 0
		Cheque Book	0 16 8
			20 17 7
			£306 10 9

York Street Flax Spinning Co., Ltd., 4½% Debentures, £400.

We certify that the above is a true Account.

E. J. ELLIOTT, Governor.

W. B. BURROWES, Accounting Officer.

18th day of February, 1941.

I certify that the foregoing Account is correct.

W. R. MACONKEY, Comptroller and Auditor-General.

24th day of February, 1941.

The Account of The Belfast Natural History and Philosophical Society given on preceding page is in the form prescribed by the Local Government Board. It includes the subscriptions and expenses of the Archaeological Section, separate account for which is as follows:—

ARCHAEOLOGICAL SECTION.

1939.				1939.			
Oct.	To Balance ...	...	£62 16 2	Oct.	By Insurance ...	...	£1 12 6
"	" Subscriptions ...	...	13 10 0	Nov.	" W. Sweeney, Account ...	...	0 11 6
"	" Subsidy ...	...	7 5 0	"	" Oliver Davies, M.A. ...	...	6 7 5
				"	" "Belfast News-Letter" ...	...	0 6 9
				"	" Postages ...	...	0 10 0
				"	" Balance ...	...	74 3 0
			£83 11 2				£83 11 2

W. B. BURROWS.

EXCHANGES.

*Publications received during year.

- ABO—Publications of the Abo Academy.
 ADDIS ABABA—Bollettini di Idrobiologia, Caccia e Persca della Africa Orientale Italiana.
 *ALBANY—Bulletins of the New York State Museum.
 *ANN ARBOR—Publications of the University of Michigan.
 ATHENS—Publications of the Zoological Institute and Museum.
 *AUCKLAND—Reports of the Auckland Institute and Museum.
 *BASEL—Verhandlungen der Naturforschenden Gesellschaft in Basel.
 BERGEN—Publications of the Bergen Museum.
 BERKELEY, CAL.—Publications of the University of California.
 BERLIN—Publications of the Zoological Museum of Berlin University.
 BIRMINGHAM—Publications of the Birmingham Natural History and Philosophical Society.
 BLOEMFONTEIN—Publications of the National Museum of South Africa.
 BOSTON—Publications of the Boston Society of Natural History.
 *BOULDER—Publications of the University of Colorado.
 BRIGHTON—Report of the Brighton and Hove Natural History and Philosophical Society.
 BRISBANE—Memoirs of the Queensland Museum.
 BRUSSELS—Annals Societe Royale Zoologique de Belgique.
 „ Bulletin Societe Royale de Botanique de Belgique.
 BUENOS AIRES—Anales del Museo Argentino de Ciencias Naturales.
 BUFFALO—Bulletins of the Buffalo Society of Natural Sciences.
 *CALCUTTA—Publications of the Geological Survey of India.
 CAMBRIDGE, MASS.—Publications of the Museum of Comparative Zoology.
 CARDIFF—Transactions of the Cardiff Naturalists' Society.
 *CHICAGO—Publications of the Chicago Academy of Sciences.
 *CINCINNATI—Publications of the Lloyd Library and Museum.
 COIMBRA—Publications of the Zoological Museum of the University of Coimbra.
 *COLORADO SPRINGS—Publications of the Colorado College.
 COLUMBIA—Proceedings of the Missouri Academy of Science.
 *COLUMBUS—Ohio Journal of Science.
 „ Bulletin of the Ohio Biological Survey.
 *COVENTRY—Proceedings of the Coventry Natural History and Scientific Society.
 DANZIG—Schriften Naturforschenden Gesellschaft.
 *DUBLIN—Proceedings of the Royal Dublin Society.
 * „ „ Irish Historical Studies.”
 EASTBOURNE—Transactions and Journal of the Eastbourne Natural History and Archaeological Society.
 EDINBURGH—Proceedings of the Royal Physical Society.
 * „ „ Proceedings of the Royal Society of Edinburgh.
 * „ „ Transactions and Proceedings of the Botanical Society of Edinburgh.
 * „ „ Proceedings of the Society of Antiquaries of Scotland.
 EXETER—Proceedings of the Devon Archaeological Exploration Society.
 *GLASGOW—Transactions of the Geological Society of Glasgow.
 GORLITZ—Publications of the Natural History Society of Gorlitz.

- GOTEBORGS—Handlungar Regia Societas Scientiarum et Literarum Gotoburgensis.
- *HALIFAX, N.S.—Proceedings of the Nova Scotian Institute of Science.
- HOVE—Annual Report of the Brighton and Hove Natural History and Philosophical Society.
- INDIANAPOLIS—Proceedings of the Indiana Academy of Science.
- *ITHACA—Bulletins of the Cornell University Agricultural Experiment Station.
- LA PLATA—"Manuferos Fossiles de la Republica Argentina."
- LAUSANNE—Memoirs and Bulletins de la Societe Vaudoise des Sciences Naturalles.
- LAWRENCE—Bulletins of the University of Kansas.
- LIMA—Memorias Sociedad de Ingenieros del Peru.
- *LJUBLJANA, YUGOSLAVIA—Transactions of the Natural Science Society.
- LONDON—Publications of the British Museum (N.H.).
- * " " Quarterly Journal of the Royal Microscopical Society.
- * " " Publications of the British Association.
- " " Proceedings of the Royal Institute of Great Britain.
- * " " Quarterly Journal of the Geological Society.
- " " Publications of the Viking Society for Northern Research.
- " " Reports of the National Trust.
- *LOS ANGELES—Publications of the University of California in Los Angeles.
- *LUND—Proceedings of the Royal Physiographic Society at Lund.
- MADISON—Transactions of the Wisconsin Academy of Sciences, Arts and Letters.
- MADRAS—Publications of the Government Museum, Madras.
- " " Publications of the Madras Fisheries Department.
- MANCHESTER—Journal of the Manchester Geographical Society.
- *MELBOURNE—Proceedings of the Royal Society of Victoria.
- MONTEVIDEOA—Archivos Sociedad de Biologia de Montevidea.
- *MOSCOW—Bulletin de la Societe des Naturalistes de Moscow.
- NEWCASTLE-UPON-TYNE—Proceedings of the University of Durham Philosophical Society.
- NEW HAVEN—Transactions of the Connecticut Academy of Arts and Sciences.
- NEW YORK—Annals and Transactions of the New York Academy of Sciences.
- " " Bulletins of the New York State Museum.
- *OSLO—Publications of the University Library, Oslo.
- *OTTAWA—Publications of the Geological Survey of Canada, Department of Mines.
- * " " Publications of the Canadian Department of Agriculture.
- OXFORD—Proceedings and Report of the Ashmolean Natural History Society.
- *PADOVA—Atti dell Accademia Scientifica.
- PHILADELPHIA—Proceedings of the Academy of Natural Sciences of Philadelphia.
- * " " Proceedings of the American Philosophical Society.
- POLSKA—Annales Panstwowe Museum Zoologiczne.
- *PULLMAN—Research Studies of the State College of Washington.
- RENNES—Bulletin Geologique et Mineralogique de Bretagne.
- *RIGA—Publications of the Latvijas Universitates, Riga.
- * " " Professor Strand, F.L.S.—Folia Zoologica et Hydrobiologica.
- *RIO DE JANEIRO—Archivos do Instituto de Biologia Vegetal.
- " " Archivos Botânico do Rio de Janeiro.
- " " Publications of the National Museums of Brazil.
- * " " Publications of the Oswaldo Cruz Institute.
- ROCHESTER, N.Y.—Proceedings of the Rochester Academy of Science.
- SAN DIEGO—Transactions of the San Diego Society of Natural History.
- SAN FRANCISCO—Proceedings of the California Academy of Sciences.
- *STILLWATER—Bulletins of the Oklahoma Agricultural and Mechanical College.

- *STIRLING—Transactions of the Stirling Natural History and Archaeological Society.
 ST. LEONARDS-ON-SEA—Report of the Hastings and St. Leonards Natural History Society.
 „ Hastings and East Essex Naturalist.
 ST. LOUIS—Annual Report of the St. Louis Public Library.
 *STRATFORD—The Essex Naturalist.
 STRAVANGER—Publications of the Stravanger Museum.
 *SYDNEY—Annual Report of the Technological Museum, Sydney.
 *TORONTO—Transactions and Proceedings of the Royal Canadian Institute.
 *TORQUAY—Transactions and Proceedings of the Torquay Natural History Society.
 UPSALA—Bulletin of the Geological Institution of the University of Upsala.
 VIENNA—Verhandlungen Zoologisch-Botanischen Gesellschaft.
 *WASHINGTON—Annual Report of the Smithsonian Institution.
 * „ Proceedings of the United States National Museum.
 * „ Smithsonian Institution. Miscellaneous Collections.
 * „ Publications of the United States Geological Survey.
 * „ Publications of the United States Department of Agriculture.
 * „ Bulletin of the Bureau of American Ethnology.
 * „ Contributed Technical Papers of the National Geographical Society.
 *WELSHPOOL—Publications of the Powys-land Club.
 *YORK—Annual Report of the Yorkshire Philosophical Society.
 ZURICH—Publications of the Natural History Society of Zurich.

BELFAST NATURAL HISTORY AND
PHILOSOPHICAL SOCIETY.

Officers and Council of Management for 1940-41.

President:

S. W. ALLWORTHY, M.A., M.D., F.C.S.

Vice-Presidents:

E. J. ELLIOTT, F.R.S.A.I.

PROF. T. THOMSON FLYNN, D.SC., M.R.I.A.

PROF. W. B. MORTON, M.A., D.SC., M.R.I.A.

PROF. GREGG WILSON, O.B.E., M.A., D.SC., PH.D., M.R.I.A.

Hon. Treasurer:

W. B. BURROWES, F.R.S.A.I.

Hon. Librarian:

W. M. CRAWFORD, B.A., F.R.E.S.

Hon. Secretary:

ARTHUR DEANE, F.R.S.E.

Council:

COLONEL BERRY, J.P., M.R.I.A.

W. B. BURROWES, F.R.S.A.I.

RT. HON. SAMUEL CUNNINGHAM

E. J. ELLIOTT, F.R.S.A.I.

PROF. GREGG WILSON, M.A., D.SC., M.R.I.A.

} Retire
1941.

PROF. T. THOMSON FLYNN, D.SC., M.R.I.A.

R. H. HUNTER, M.D., PH.D., M.R.I.A.

R. S. LEPPER, M.A., LL.M., F.R.HIST.S.

PROF. W. B. MORTON, M.A., D.SC., M.R.I.A.

CAPTAIN JAMES R. YOUNG, F.R.I.B.A.

} Retire
1942.

S. W. ALLWORTHY, M.A., M.D., F.G.S.

W. M. CRAWFORD, B.A., F.R.E.S.

ARTHUR DEANE, F.R.S.E., M.R.I.A.

E. ESTYN EVANS, M.A., D.SC., F.S.A.

A. A. CAMPBELL, F.R.S.A.I.

} Retire
1943.

SHAREHOLDERS AND MEMBERS.

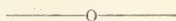
[*Denotes Holders of three or more Shares.]
 [a ,, Members of Archaeological Section.]

aAcheson, F. W., 37 Osborne Park,	Belfast
Adams, John, Auburn, Cranmore Park,	do.
*Alexander, Francis, B.E.,	do.
Alderdice, Richard Sinclair, F.C.I.B., 7 Wellington Place,	do.
Alloway, A. J., M.A., 13 Sharman Road,	do.
Allworthy, S. W., M.D., M.A., F.C.S., Manor House, Antrim Road,	do.
aAnderson, F. G. H., M.A., I.C.S., Brooklands, Annadale Avenue,	do.
aAntrim, The Earl of, Glenarm Castle,	Co. Antrim
aAtkinson, Arthur S., Dromana, Knockdene Park,	Belfast
<hr/>	
aBaird, Major William, J.P., Royal Avenue,	do.
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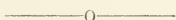
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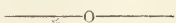
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